

UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Helmut Jerg et al.
Application Number: 10/578,386
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Group Art Unit: 1711
Examiner: Jason Paul Riggleman
Title: DEVICE FOR CONTROLLING SPRAY CHANNELS IN
DISHWASHER MACHINES

Mail Stop Appeal Brief - Patents

Commissioner for Patents

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APPEAL BRIEF

Pursuant to 37 CFR 1.192, Appellants hereby file an appeal brief in the above-identified application. This Appeal Brief is accompanied by the requisite fee set forth in 37 CFR 1.17(f).

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(1) REAL PARTY IN INTEREST

The real party in interest is BSH Bosch und Siemens Hausgeräte GmbH.

(2) RELATED APPEALS AND INTERFERENCES

There are no appeals or interferences that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) STATUS OF CLAIMS

Claims 11-42 are pending in the present application. Claims 1-10 were canceled. Claims 24-42 are allowed. The final rejections of claims 11-23 are being appealed. Claims 11, 24, 30, and 37 are independent.

(4) STATUS OF AMENDMENTS

There are no outstanding Amendments.

(5) SUMMARY OF CLAIMED SUBJECT MATTER

An exemplary embodiment of the present invention, as recited by, for example, independent claim 11, is directed to a dishwasher comprising:

at least one rinsing container (e.g., 1) having an interior in which items to be subjected to a dishwashing treatment are disposed (e.g., paragraphs [007], [027], [032], [033]); and

a spray device for spraying rinsing liquid into the interior of the rinsing container (e.g., 1), the spray device including at least one spray channel (e.g., 3) for guiding a rinsing liquid and at least one distributor (e.g., 5) for regulating the supply of rinsing liquid to the at least one spray channel (e.g., 3), the at least one spray channel (e.g., 3) having, on a side directed towards the interior of the rinsing container (e.g., 1), openings (e.g., 4) for the passage therethrough of the rinsing liquid and having two open ends via which rinsing liquid can be supplied in a pressurised manner (e.g., paragraphs [007], [027] - [030], [032], [032]).

Many conventional dishwashers include spray devices which operate with rotating spray arms. In many cases, the corner areas of the rinsing container are not adequately sprayed with rinsing liquid by the rotating spray arms, since the rotating spray arms have a circular range of action, while the rinsing container commonly is rectangular. Moreover, items to be washed in the dishwasher can interfere with the rotating spray arms, thereby limiting operation of the dishwasher, the arrangement of items in the dishwasher, and the use of space within the dishwasher. Such spray devices commonly produce only uniform spray jets which may be insufficient to adequately clean the items to be rinsed.

In stark contrast, the present invention provides a dishwasher with a space-saving spray device that has no moving spray arms, thereby minimizing breakdowns associated with such moving parts, eliminating interference between the spray device and the arrangement of items in the dishwasher, and improving the use of space within the dishwasher.

The present invention also provides a spray device in which the rinsing liquid is sprayed in the rinsing container as uniformly as possible to efficiently act upon the items to be rinsed with rinsing liquid, can produce variable spray jets in order to improve the cleaning effect of the items to be rinsed, and can provide different spray patterns. Moreover, the present invention provides a spray device that can be configured in almost any shape to correspond to any shape of the rinsing container, as well as on one or more of the bottom, sides, and top of the rinsing container. See, e.g., page 1, lines 25-29; page 2, lines 13-32; page 3, lines 1-9; and page 5, lines 13-18.

Claim 12 depends from claim 11 and recites wherein the at least one distributor (e.g., 5) is mounted to be movable relative to the at least one spray channel (e.g., 3) in a selected one of a to-and-fro displacement movement in alternating directions and a movement that is not a to-and-fro displacement movement in alternating directions (e.g., paragraphs [016], [017], [020], [029], [031]).

Claim 13 depends from claim 11 and recites wherein the at least one distributor (e.g., 5) has at least one opening through which rinsing liquid can be supplied in a pressurised manner via an open end of the spray channel (e.g., 3) in a predetermined position of the distributor (e.g., 5) (e.g., paragraphs [007], [012], [013], [015]-[020], [028]-[030]).

Claim 14 depends from claim 11 and recites another distributor (e.g., 5), the at least one distributor (e.g., 5) being at the first open end of the at least one spray channel (e.g., 3) and the other distributor (e.g., 5) being provided at the second open end of the at least one spray channel (e.g., 3) and the at least one spray channel (e.g., 3) and the other distributor (e.g., 5) operating to regulate the supply of rinsing liquid to the spray channel (e.g., 3) (e.g., paragraphs [007], [012], [013], [015]-[020], [028]-[030], [032], [033]).

Claim 15 depends from claim 11 and recites another distributor (e.g., 5) and wherein the at least one spray channel (e.g., 3) is one of a plurality of spray channels (e.g., 3) each of which has a first open end coupled to the at least one distributor (e.g., 5) and a second open end coupled to the other distributor (e.g., 5) (e.g., paragraphs [007], [012], [013], [015]-[020], [028]-[030], [032], [033]).

Claim 16 depends from claim 12 and recites drive means (e.g., 7, 8, and 9) for driving the at least one distributor (e.g., 5) in a periodic movement (e.g., paragraphs [029], [031]).

Claim 17 depends from claim 16 and recites wherein the at least one distributor (e.g., 5) includes a drive slot (e.g., 9) and the drive means includes a rotary disk (e.g., 7) and a cam (e.g., 8) arranged thereon, which engages in the drive slot (e.g., 9) formed in the at least one distributor (e.g., 5) (e.g., paragraphs [029], [031]).

Claim 18 depends from claim 11 and recites wherein the pressure at which the rinsing liquid is supplied to the spray channel (e.g., 3) is variable (e.g., paragraphs [013], [019]).

Claim 19 depends from claim 11 and recites wherein the at least one spray channel (e.g., 3) is tubular and the openings (e.g., 4) for the passage of rinsing liquid of the at least one spray channel (e.g., 3) are configured over a predetermined arc segment of the at least one spray channel (e.g., 3) on the side thereof directed towards the interior of the rinsing container (e.g., 1) (e.g., paragraph [027]).

Claim 20 depends from claim 11 and recites wherein the rinsing container (e.g., 1) is trough-shaped and the at least one spray channel (e.g., 3) is one of a plurality of spray channels (e.g., 3) that are aligned parallel to one another at least on the bottom of the rinsing container (e.g., 1) (e.g., paragraph [023]).

Claim 21 depends from claim 11 and recites:

a second distributor (e.g., 5) (e.g., paragraphs [018], [019], [028]),

wherein the at least one distributor (e.g., 5) is at the first open end of the at least one spray channel (e.g., 3) and the second distributor (e.g., 5) is at the second open end of the at least one spray channel (e.g., 3) (e.g., paragraphs [018], [019], [028]),

wherein the at least one distributor (e.g., 5) and the second distributor (e.g., 5) cooperate to regulate a quantity of rinsing liquid supplied to the spray channel (e.g., 3) and a pressure of the rinsing liquid in parts of the spray channel (e.g., 3) (e.g., paragraphs [018], [019], [028]).

Claim 22 depends from claim 11 and recites wherein the at least one distributor (e.g., 5) is movable relative to the at least one spray channel (e.g., 3) in a to-and-fro displacement movement in alternating directions (e.g., paragraphs [016], [017], [020], [029], [031]).

Claim 23 depends from claim 22 and recites:

drive means (e.g., 7, 8, 9) for driving the at least one distributor (e.g., 5) in a periodic movement (e.g., paragraphs [029], [031]),

wherein the at least one distributor (c.g., 5) includes a drive slot (c.g., 9) (c.g., paragraphs [029], [031]), and

wherein the drive means (c.g., 7, 8, 9) includes:

a rotary disk (c.g., 7) (c.g., paragraphs [029], [031]); and

a cam (c.g., 8) arranged on the rotary disk (c.g., 7) and engaging the drive slot (c.g., 9) formed in the at least one distributor (c.g., 5) (c.g., paragraphs [029], [031]).

(6) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

- a. Whether claims 11, 14, 18, 19, and 21 are unpatentable under 35 U.S.C. § 103(a) over the Lutolf reference (FR2285838), the Van Dijk reference (U.S. Patent No. 2,654,894), and the Steen reference (GB 949954).
- b. Whether claims 12, 13, and 16 are unpatentable under 35 U.S.C. 103(a) over the Lutolf reference, the Van Dijk reference, the Steen reference, and the Bolla reference (CH571852).
- c. Whether claims 12, 13, 16, and 22 are unpatentable under 35 U.S.C. 103(a) over the Lutolf reference, the Van Dijk reference, the Steen reference, the Perry reference (U.S. Patent No. 6,003,529), and the Deuser et al. reference (UK Patent Application Publication No. 2003840).
- d. Whether claims 17 and 23 are unpatentable under 35 U.S.C. 103(a) over the Lutolf reference, the Van Dijk reference, the Steen reference,

the Perry reference, the Deuser et al. reference, and the Hamilton reference (U.S. Patent No. 3,512,539).

- c. Whether claims 11-16 and 18-21 are unpatentable under 35 U.S.C. 103(a) over the Bolla reference in view of the Steen reference.

(7) ARGUMENT

- a. Claims 11, 14, 18, 19, and 21 are NOT unpatentable under 35 U.S.C. § 103(a) over the Lutolf reference (FR2285838), the Van Dijk reference (U.S. Patent No. 2,654,894), and the Steen reference (GB 949954).

Claims 11, 14, 18, 19, and 21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the Lutolf reference, the Van Dijk reference, and in view of the Steen reference.

Applicants respectfully traverse this rejection.

To summarize, the final Office Action relies on:

- (1) the Lutolf reference for allegedly teaching a dishwasher having spray channels allegedly having two open ends;
- (2) the Van Dijk reference for allegedly teaching a distributor (valves 48, 53) that can be opened and closed to provide surges of liquid; and
- (3) the Steen reference for allegedly teaching feeding liquid from both sides of the spray channel and towards each other so that they collide at a lateral spray point.

None of the applied references, either individually or in combination, discloses or suggests the features of the claimed invention including a spray device including at least one spray channel for guiding a rinsing liquid and at least one distributor for regulating the supply of rinsing liquid to the at least one spray channel, the at least one spray channel having, on a

side directed towards the interior of the rinsing container, openings for the passage therethrough of the rinsing liquid and having two open ends via which rinsing liquid can be supplied in a pressurised manner, as recited by independent claim 11. Moreover, none of the applied references, either individually or in combination, discloses or suggests the features of at least dependent claims 14, 18, 19, and 21.

These features are important for providing a space-saving spray device that has no moving spray arms, thereby minimizing breakdowns associated with such moving parts, eliminating interference between the spray device and the arrangement of items in the dishwasher, and improving the use of space within the dishwasher, while also providing uniform spraying, producing variable spray jets and different spray patterns, and providing a spray device that can be configured in almost any shape to correspond to any shape of the rinsing container. See, e.g., page 1, lines 25-29; page 2, lines 13-32; page 3, lines 1-9; and page 5, lines 13-18.

The Office Action alleges that the Lutolf reference discloses distributors 80, 60, and that the pressure allegedly is variable by means of the distributors 80, 60.

Appellants respectfully submit that the Office Action errs in the characterization of the Lutolf reference as having a “distributor” as claimed.

Contrary to the assertions in the Office Action, the Lutolf reference very clearly does not disclose these features. Indeed, the Lutolf reference very clearly fails to disclose at least one distributor for regulating the supply of rinsing liquid to the at least one spray channel, as recited in claim 11. Moreover, the Lutolf reference very clearly fails to disclose that the pressure is variable by means of the check valves 60, 80, which are compared to the claimed distributor.

Instead, as shown in the Figure, the Lutolf reference discloses check valves or one-way valves 60, 80, which simply allow flow in a single direction. Based on a computer translation of the Lutolf reference obtained from the European Patent Office web site, the

valve symbols used for 60, 80 in the Figure are consistent with the description of the Lutolf reference, which describes that the liquid flows only from pipes 55 and 77 through check valves 60, 80 respectively toward the shower pipes 3.

A “check valve” is defined as “a valve that permits flow in one direction only” by Merriam-Webster Online Dictionary, 2011, Merriam-Webster Online, 05 January 2011, <http://www.merriam-webster.com/dictionary/check+valve>.

Thus, contrary to the assertions in the Office Action, the check valves 60, 80 of the Lutolf reference do not regulate the supply of rinsing liquid to the spray channel. Rather, the check valves 60, 80 permit the rinsing liquid to be supplied unimpeded or unregulated into the pipe system 3 *in the supply direction*. The check valves 60, 80, by definition, simply restrict flow back from, or out of, the pipe system 3 toward the pipes 55 and 77, respectively (i.e., the reverse flow direction or return flow direction, not the supply direction).

The Lutolf reference clearly does not disclose that the pressure at which the rinsing liquid is supplied to the spray channel is variable. Indeed, the check valves 60, 80 are not capable of varying the pressure of the rinsing liquid. Absent the addition of some other device, the check valves 60, 80 themselves do not, and cannot, vary the pressure in the spray channels. Hence, the check valves 60, 80 do not disclose a distributor as claimed.

Moreover, independent claim 11 recites the at least one spray channel [...] having two open ends via which rinsing liquid can be supplied in a pressurised manner. Claim 11 positively defines the physical structure of the spray channel as having two open ends.

The Lutolf reference very clearly fails to disclose a spray channel having two open ends, as claimed.

Instead, as shown in the Figure, the Lutolf reference discloses a closed system of spray channels 3. The ends of the spray channels 3 are not open. Rather, the ends of the spray channel 3 are fixed to the check valves or one-way valves 60, 80. Hence, the Lutolf reference does not render obvious the features of claim 11.

The Response to Arguments of the final Office Action asserts that Applicants have failed to amend the original claims and the language of the claims are extremely broad. Applicants note, however, that there is absolutely nothing wrong with a claim being "broad" so long as the claim does not read on the prior art under 35 U.S.C. § 102 and 103. For the reasons set forth above, Applicants submit that the claims are not anticipated by, or rendered obvious from, the prior art of record.

Alternative Rejection:

In the alternative to the rejection above, the Office Action alleges that, if the Lutolf reference does not teach that the check valves (60)(80) cooperate to regulate the flow of liquid to the spray channels, then the Van Dijk reference makes up for the deficiencies by allegedly teaching a cleaning device (a foot bath) in which a conduit (20) is supplied at each end by an alleged distributor (compared to valves 48 & 53), Fig. 1. The Office Action alleges that the Van Dijk reference teaches that "the degree of turbulence of the liquid may be increased by opening both valves 48 and 53, or they (either of them) may be rhythmatically opened and closed to provide surges of liquid" (Column 4, Lines 59-64).

Appellants respectfully traverse this rejection for at least the following reasons.

The Office Action fails to give the claims their broadest reasonable interpretation as required by M.P.E.P. § 2111 and errs in the characterization of the Lutolf reference having "two open ends" as claimed.

The Advisory Action dated February 2, 2011, asserts that "the Lutolf reference teaches ends in which liquid can be supplied - they are "open"." Applicants respectfully submit that this interpretation is inconsistent with the specification of the present application and fails to properly interpret the claims in view of the specification.

M.P.E.P. § 2111 states that during patent examination, the pending claims must be "given their broadest reasonable interpretation consistent with the specification." [...] Indeed,

the rules of the PTO require that application claims must "conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description." [...] The broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. Emphasis added Appellants.

Independent claim 11 recites the at least one spray channel [...] having two open ends via which rinsing liquid can be supplied to the open ends of the channel (i.e. entrance to the jet tube) in a pressurised manner by the distributor. Claim 11 positively defines the physical structure of the spray channel as having discrete features of two open ends such that rinsing liquid can be supplied to the spray channels from both sides under different pressurization by a distributor such as described in the present application. See, e.g., paras. [012]-[015]. The features of the distributor that cooperate with the open ends of the spray channel are defined further by, for example, claim 22, in which the distributor is movable relative to the at least one spray channel in a to-and-fro displacement movement in alternating directions.

Hence, the general assertion that "the Lutolf reference teaches ends in which liquid can be supplied - they are "open"" is inconsistent with the specification of the present application and fails to properly interpret the claims in view of the specification.

As shown in the Figure, the Lutolf reference simply discloses a closed system of spray channels 3. The ends of the spray channels 3 are not open. Instead, the ends of the spray channel 3 are fixed to the check valves or one-way valves 60, 80. Hence, the Lutolf reference does not disclose "open" ends that are capable of functioning in the manner of the "open ends" of the claimed invention, e.g., as further defined by claim 22.

The Office Action errs in failing to consider the claimed invention “as a whole” as required by M.P.E.P. § 2141.02 (I).

Applicants respectfully submit that neither the Van Dijk reference nor the Steen reference makes up for the deficiencies of the Lutolf reference. Moreover, one of ordinary skill in the art would not have had an apparent reason to combine the disclosure of the Lutolf reference with the disclosure of the Van Dijk reference and/or the Steen reference to arrive at the claimed invention as a whole.

The Van Dijk reference has valves 48 and 53 that are manually controlled by an occupant or attendant to supply liquid to the foot bath. One of ordinary skill in the art of dishwashers would not have been motivated by the manual opening and closing of valves of a foot bath to regulate the supply of washing liquid in a dishwasher. Indeed, one of ordinary skill in the art would recognize that, in stark contrast to a foot bath, it would be entirely impractical to manually open and close valves during a washing cycle of a dishwasher in order to regulate the supply of washing liquid to the items to be rinsed.

Indeed, the Response to Arguments of the final Office Action specifically acknowledges that “[i]t is just as impractical to manually operate valves on a foot bath as on a dishwashing machine.” See Office Action at page 3. However, the Van Dijk reference does just that; valves 48 and 53 are manually controlled by an occupant or attendant to supply liquid to the foot bath. See, e.g., col. 4, lines 24-25 and 59-63.

Hence, when properly considered as a whole, the Van Dijk reference teaches manual operation of a foot bath. The teachings of the Van Dijk reference have absolutely nothing to do with a dishwasher and would be entirely impractical for use in a dishwasher. Indeed, as the Office Action acknowledges, it would be entirely impractical to manually operate valves on a dishwashing machine, as taught by the Van Dijk reference.

The Response to Arguments of the final Office Action dated November 10, 2010, asserts that the fundamental principle [taught by the Van Dijk reference] is that surges of liquid can be produced by opening the valves. See, Office Action at page 3. Applicants

submit, however, that the Office Action appears to be improperly distilling the invention down to a gist of the invention, rather than considering the claimed invention as whole.

M.P.E.P. § 2141.02 (I) states that, in determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. M.P.E.P. § 2141.02 (II) states that, distilling an invention down to the "gist" or "thrust" of an invention disregards the requirement of analyzing the subject matter "as a whole."

The present invention is not simply that surges of liquid can be produced by opening valves, irrespective of how such is accomplished. Rather, the present invention provides a space-saving spray device (as defined by the claims) that has no moving spray arms, thereby minimizing breakdowns associated with such moving parts, eliminating interference between the spray device and the arrangement of items in the dishwasher, and improving the use of space within the dishwasher, while also providing uniform spraying, producing variable spray jets and different spray patterns, and providing a spray device that can be configured in almost any shape to correspond to any shape of the rinsing container. See, e.g., page 1, lines 25-29; page 2, lines 13-32; page 3, lines 1-9; and page 5, lines 13-18.

Hence, when properly considered as a whole, the manual operation of valves of a foot bath to provide surges of liquid in the foot bath, as taught by the Van Dijck reference, has absolutely nothing to do with a dishwasher, and its teachings would be entirely impractical for use in a dishwasher. Therefore, one of ordinary skill in the art clearly would not have had an apparent reason to combine these references in the manner alleged to arrive at the claimed invention.

Moreover, while the Office Action has stated a rationale, Applicants respectfully submit that the Office Action has not established an adequate rationale for making such a combination *to arrive at the claimed invention*. That is, the stated rationale in the Office Action "to create a washing machine in which there is fine control of the pulsing of the

spray -- which is especially useful in a system with a stationary spray system -- to effectively wash the dishes and achieve the expected result” is not believed to be *adequate* to establish a *reasonable* basis for one of ordinary skill in the art to combine the references in the manner alleged *to arrive at the claimed invention*. Rather, based on the stated rationale, one of ordinary skill in the art would be motivated to combine the references to arrive at the teachings of the Steen reference, which provides fine control of the angle of spread covered by the spray. See, e.g., page 1, lines 47-51. The stated rationale does not provide any apparent reason to further provide the inventive features of the claimed invention which provides a spray device including at least one spray channel for guiding a rinsing liquid and at least one distributor for regulating the supply of rinsing liquid to the at least one spray channel, the at least one spray channel having, [...] openings for the passage therethrough of the rinsing liquid and having two open ends via which rinsing liquid can be supplied in a pressurised manner, as recited by claim 11. As explained above, these features are important for providing a space-saving spray device that has no moving spray arms, thereby minimizing breakdowns associated with such moving parts, eliminating interference between the spray device and the arrangement of items in the dishwasher, and improving the use of space within the dishwasher, while also providing uniform spraying, producing variable spray jets and different spray patterns, and providing a spray device that can be configured in almost any shape to correspond to any shape of the rinsing container. See, e.g., page 1, lines 25-29; page 2, lines 13-32; page 3, lines 1-9; and page 5, lines 13-18.

For at least the foregoing reasons, none of the applied references discloses or suggests the subject matter defined by claims 11, 14, 18, 19, and 21.

Appellants respectfully request reversal of this rejection.

- b. Claims 12, 13, and 16 are NOT unpatentable under 35 U.S.C. 103(a) over the Lutolf reference, the Van Dijk reference, the Steen reference, and the Bolla reference (CH571852).

Claims 12, 13, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Lutolf reference, the Van Dijk reference, the Steen reference, and further in view of the Bolla reference.

Applicants respectfully traverse this rejection.

To summarize, the final Office Action relies on:

- (1) the Lutolf reference for allegedly teaching a dishwasher having spray channels allegedly having two open ends;
- (2) the Van Dijk reference for allegedly teaching a distributor (valves 48, 53) that can be opened and closed to provide surges of liquid;
- (3) the Steen reference for allegedly teaching feeding liquid from both sides of the spray channel and towards each other so that they collide at a lateral spray point; and
- (4) the Bolla reference for allegedly teaching a rotating distributor 8 that supplies liquid to spray channels.

For the reasons set forth above, neither the Van Dijk reference or the Steen reference makes up for the deficiencies of the Lutolf reference with respect to independent claim 11, and one of ordinary skill in the art would not have had an apparent reason to combine these references in the manner alleged to arrive at the claimed invention.

The Bolla reference also fails to make up for the deficiencies of these references. Regarding the Bolla reference, the Office Action makes the conclusory statement that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Lutolf reference with the Bolla reference to create a washing machine in which there is fine control of the pulsing of the spray -- which is especially useful in a system with a

stationary spray system -- to effectively wash the dishes and achieve the expected result.” The Office Action fails to provide any support for these conclusions.

Similar to the rejection above, Applicants respectfully submit that, while the Office Action has stated a rationale, Applicants respectfully submit that the Office Action has not established an adequate rationale for making such a combination *to arrive at the claimed invention*. That is, the stated rationale in the Office Action “to create a washing machine in which there is fine control of the pulsing of the spray -- which is especially useful in a system with a stationary spray system -- to effectively wash the dishes and achieve the expected result” is not believed to be *adequate* to establish a *reasonable* basis for one of ordinary skill in the art to combine the references in the manner alleged *to arrive at the claimed invention*. Rather, based on the stated rationale, one of ordinary skill in the art would be motivated to combine the references to arrive at the teachings of the Steen reference, which provides fine control of the angle of spread covered by the spray. See, e.g., page 1, lines 47-51. The stated rationale does not provide any apparent reason to further provide the inventive features of the claimed invention which provides a spray device including at least one spray channel for guiding a rinsing liquid and at least one distributor for regulating the supply of rinsing liquid to the at least one spray channel, the at least one spray channel having, [...] openings for the passage therethrough of the rinsing liquid and having two open ends via which rinsing liquid can be supplied in a pressurised manner, as recited by claim 11. As explained above, these features are important for providing a space-saving spray device that has no moving spray arms, thereby minimizing breakdowns associated with such moving parts, eliminating interference between the spray device and the arrangement of items in the dishwasher, and improving the use of space within the dishwasher, while also providing uniform spraying, producing variable spray jets and different spray patterns, and providing a spray device that can be configured in almost any shape to correspond to any shape of the rinsing container. See, e.g., page 1, lines 25-29; page 2, lines 13-32; page 3, lines 1-9; and page 5, lines 13-18.

Applicants respectfully submit that such conclusory statements are insufficient to provide a prima facie case for obviousness because the Office Action fails to provide an adequate rationale for modifying the prior art as required by *KSR International v. Teleflex Inc.* 82 U.S.P.Q. 2d 1385 (2007). "[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rationale underpinning to support the legal conclusion of obviousness." (*In re Kahn*, 441 F.3d 977, 988 (CA Fed. 2006) cited with approval in *KSR*).

For these reasons, Applicants respectfully submit that the Office Action fails to present a prima facie case for obviousness.

Even assuming in arguendo that one of ordinary skill in the art would have been motivated to make the alleged combination, the Bolla reference does not make up for the deficiencies of the alleged combination of the applied references.

Particularly, none of the applied references, including the Bolla reference, discloses or suggests wherein the at least one distributor is mounted to be movable relative to the at least one spray channel in a selected one of a to-and-fro displacement movement in alternating directions and a movement that is not a to-and-fro displacement movement in alternating directions, as recited in claim 12. The obviousness of the specific features recited in the claims cannot be established merely by a general assertion that the prior art teaches varying spray patterns absent some showing that the actual claimed features are disclosed by, or rendered obvious from, the prior art.

Thus, Applicants respectfully submit that the stated rationale in the Office Action fails articulated a reasonable basis for modifying the Lutolf reference *to arrive at the claimed invention*, in which the at least one distributor is mounted to be movable relative to the at least one spray channel in a selected one of a to-and-fro displacement movement in alternating directions and a movement that is not a to-and-fro displacement movement in alternating directions, as recited in claim 12.

Claim 13 recites the arrangement of the at least one opening of the at least one distributor and an open end of the spray channel, which also clearly is not disclosed or rendered obvious from the applied references or prior art in general.

Claim 16 recites drive means for driving the at least one distributor in a periodic movement. The Office Action asserts that the Bolla reference discloses a drive means for driving the distributor in periodic movement, but does not cite any support or provide an explanation for this assertion. Hence, the Office Action fails to establish a prima facie case at least with respect to claim 16.

For at least the foregoing reasons, none of the applied references discloses or suggests the subject matter defined by claims 12, 13, and 16.

Appellants respectfully request reversal of this rejection.

- c. Claims 12, 13, 16, and 22 are NOT unpatentable under 35 U.S.C. 103(a) over the Lutolf reference, the Van Dijk reference, the Steen reference, the Perry reference (U.S. Patent No. 6,003,529), and the Deuser et al. reference (UK Patent Application Publication No. 2003840).

Claims 12, 13, 16, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Lutolf reference, the Van Dijk reference, the Steen reference, the Perry reference, and further in view of the Deuser et al. reference.

Applicants respectfully traverse this rejection.

To summarize, the final Office Action relies on:

- (1) the Lutolf reference for allegedly teaching a dishwasher having spray channels allegedly having two open ends;
- (2) the Van Dijk reference for allegedly teaching a distributor (valves 48, 53) that can be opened and closed to provide surges of liquid;

(3) the Steen reference for allegedly teaching feeding liquid from both sides of the spray channel and towards each other so that they collide at a lateral spray point;

(4) the Perry reference for teaching a plate-type distributor (valve 40 having a slide plate 50 that moves in a slot 48 to change the size of the orifice 44) that allegedly is movable in alternating directions; and

(5) the Deuser et al reference for the motivation for alternating spray patterns for washing 3-D objects such as containers;

For the reasons set forth above, neither the Van Dijk reference or the Steen reference makes up for the deficiencies of the Lutolf reference with respect to independent claim 11, and one or ordinary skill in the art would not have had an apparent reason to combine these references in the manner alleged to arrive at the claimed invention.

The Perry reference and the Deuser et al. reference also fail to make up for the deficiencies of these references.

Alternative Rejection:

In the alternative to the above, the Office Action acknowledges that the Lutolf reference, as modified by the Van Dijk reference and the Steen reference does not teach the to-and-fro movement of the distributor in alternating directions and the drive means. However, the Office Action alleges that the Perry reference teaches a plate-type distributor (valve 40) which is movable related to the spray channel in a displacement movement in alternating directions, Fig. 2, that there allegedly is a drive means for driving the distributor in periodic movement, and that it allegedly would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lutolf as modified by Van Dijk as modified by Steen with Perry to create a dishwashing machine with an alternating spray pattern to achieve the expected result. The Office Action fails to provide any support for these conclusions.

Similar to the rejections above, Applicants respectfully submit that such conclusory statements are insufficient to provide a prima facie case for obviousness because the Office

Action fails to provide an adequate rationale for modifying the prior art as required by KSR International v. Teleflex Inc. 82 U.S.P.Q. 2d 1385 (2007).

As explained in the response to the rejection above, while the Office Action has stated a rationale, Applicants respectfully submit that the stated rationale does not provide any apparent reason to further provide the inventive features *of the claimed invention* which provides a spray device including at least one spray channel for guiding a rinsing liquid and at least one distributor for regulating the supply of rinsing liquid to the at least one spray channel, the at least one spray channel having, on a side directed towards the interior of the rinsing container, openings for the passage therethrough of the rinsing liquid and having two open ends via which rinsing liquid can be supplied in a pressurised manner, as recited by independent claim 11.

Even assuming in arguendo that one of ordinary skill in the art would have been motivated to make the alleged combination, the Perry reference does not make up for the deficiencies of the alleged combination of the applied references.

Particularly, none of the applied references, including the Perry reference, discloses or suggests that the distributor is mounted to be movable relative to the at least one spray channel in a selected one of a to-and-fro displacement *movement* in alternating directions and *a movement* that is not a to-and-fro displacement *movement* in alternating directions, as recited in claim 12.

In stark contrast to the claimed invention, the Perry reference simply discloses a stationary valve 40 having a part (i.e., the slide plate 50) that reciprocates in a stationary slot 48 to control the flow rate of the water into the manifold. See, e.g., Perry at col. 2, lines 32-56. The valve 40 itself clearly does not move.

Thus, the valve 40 of the Perry reference is NOT mounted to be movable relative to the at least one spray channel in a selected one of a to-and-fro displacement movement in alternating directions and a movement that is not a to-and-fro displacement movement in

alternating directions, as recited in claim 12. Rather, the valve itself is stationary and only the slide plate 50 is moveable.

The Response to Arguments of the final Office Action asserts that:

“the claim language of the distributor being movable in a selected one of a to-and-fro displacement and not a to-and-fro displacement simply permits the option of a movement of a non to-and-fro displacement, only. The applicant's arguments that the Perry reference simply discloses a stationary valve having a slide plate that reciprocates in the slot is "NOT mounted to be movable in a selected one of a to-and-fro movement in alternating directions" is not understood. Examiner states that the slot reciprocates, thus a to-and-fro movement.”

Emphasis added Applicants.

Contrary to the assertions in the Office Action, the slot 48 of the valve 40 clearly does not reciprocate. Instead, the slot 48 is entirely stationary. The Perry reference only discloses that a part or component (i.e., the slide plate 50) of the stationary valve 40 reciprocates in the stationary slot 48 to vary the size of the opening formed by the plate 50 and the stationary slot 48 of the stationary valve 40 to be completely opened, completely closed, or to provide any size opening therebetween. See, e.g., Perry at col. 2, lines 32-56.

Thus, the Perry reference simply discloses **a stationary valve 40** having a part (i.e., the slide plate 50) that reciprocates in a stationary slot 48 to control the flow rate of the water through the opening formed by the plate 50 and the slot 48 into the manifold. See, e.g., Perry at col. 2, lines 32-56. The valve 40 itself clearly does not move, nor is the valve itself mounted to be movable relative to the orifice 44 in a selected one of a to-and-fro displacement movement in alternating directions and a movement that is not a to-and-fro displacement movement in alternating directions, as recited in claim 12. Rather, the valve itself is stationary and only a part of the valve (i.e., the slide plate 50) is moveable.

In comparison, independent claim 12 clearly recites that ***the distributor is mounted to be movable relative to the at least one spray channel*** in a selected one of a to-and-fro displacement movement in alternating directions and a movement that is not a to-and-fro displacement movement in alternating directions, not that a part of the distributor is mounted to be movable.

Hence, the Perry reference does not make up for the deficiencies of the alleged combination of the applied references with respect to claims 12, 13, 16, and 22.

The Office Action errs in rejecting claim 22.

None of the applied references discloses or suggests that the at least one **distributor is movable relative to the at least one spray channel** in a to-and-fro displacement movement in alternating directions, as recited in claim 22.

In stark contrast, the Perry reference simply discloses a stationary valve 40 having *a part* (i.e., the slide plate 50) that reciprocates in a stationary slot 48 to control the flow rate of the water into the manifold. See, e.g., Perry at col. 2, lines 32-56. The valve 40 itself clearly does not move. Thus, the valve 40 of the Perry reference is NOT movable relative to the spray channel in a to-and-fro displacement movement in alternating directions, as recited in claim 22. Rather, the valve 40 itself is stationary. *Only a part* of the valve, i.e., the slide plate 50, is moveable. Thus, the Perry reference simply discloses a stationary valve 40.

For at least the foregoing reasons, none of the applied references discloses or suggests the subject matter defined by claims 12, 13, 16, and 22.

Appellants respectfully request reversal of this rejection.

- d. Claims 17 and 23 are NOT unpatentable under 35 U.S.C. 103(a) over the Lutolf reference, the Van Dijk reference, the Steen reference, the Perry reference, the Deuser et al. reference, and the Hamilton reference (U.S. Patent No. 3,512,539).

Claims 17 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Lutolf reference, the Van Dijk reference, the Steen reference, the Perry reference, the Deuser et al. reference, and the Hamilton reference.

Applicants respectfully traverse this rejection.

To summarize, the final Office Action relies on:

- (1) the Lutolf reference for allegedly teaching a dishwasher having spray channels allegedly having two open ends;
- (2) the Van Dijk reference for allegedly teaching a distributor (valves 48, 53) that can be opened and closed to provide surges of liquid;
- (3) the Steen reference for allegedly teaching feeding liquid from both sides of the spray channel and towards each other so that they collide at a lateral spray point;
- (4) the Perry reference for teaching a plate-type distributor (valve 40 having a slide plate 50 that moves in a slot 48 to change the size of the orifice 44) that allegedly is movable in alternating directions;
- (5) the Deuser et al reference for the motivation for alternating spray patterns for washing 3-D objects such as containers; and
- (6) the Hamilton reference for teaching a drive means having a drive slot 105 driven by a rotary disk (crank wheel 99) and a cam (pin 101) arranged on the rotary disk and engaging the drive slot 105 to cause movement.

For the same reasons as independent claim 11, Applicants respectfully submit that neither the Van Dijk reference, the Steen reference, the Perry reference, the Deuser et al. reference, nor the Hamilton reference makes up for the deficiencies of the Lutolf reference.

Moreover, one or ordinary skill in the art would not have had an apparent reason to combine these references in the manner alleged to arrive at the claimed invention.

Thus, claims 17 and 23 are patentable over the applied reference for the same reasons as independent claim 11, as well as for the additional features recited therein.

Applicants respectfully submit that none of the applied references discloses or suggests the subject matter defined by claims 17 and 23.

Appellants respectfully request reversal of this rejection.

- c. Claims 11-16 and 18-21 are NOT unpatentable under 35 U.S.C. 103(a) over the Bolla reference in view of the Steen reference.

Claims 11-16 and 18-21 are rejected under 35 U.S.C. 103 (a) as being unpatentable over the Bolla reference in view of the Steen reference.

Applicants respectfully traverse this rejection.

To summarize, the final Office Action relies on:

- (1) the Bolla reference for allegedly teaching a rotating distributor 8 that supplies liquid to spray channels; and
- (2) the Steen reference for allegedly teaching feeding liquid from both sides of the spray channel and towards each other so that they collide at a lateral spray point.

For at least the same reasons as set forth above with respect to independent claim 11, none of the applied references, either individually or in combination, discloses or suggests the features of the claimed invention including a spray device including at least one spray channel for guiding a rinsing liquid and at least one distributor for regulating the supply of rinsing liquid to the at least one spray channel, the at least one spray channel having, on a side directed towards the interior of the rinsing container, openings for the passage therethrough of the rinsing liquid and having two open ends via which rinsing liquid can be supplied in a pressurised manner, as recited by independent claim 11. Moreover, none of the applied

references, either individually or in combination, discloses or suggests the features of at least dependent claims 12-16 and 18-21.

Appellants respectfully request reversal of this rejection.

(8) CONCLUSION

In view of the foregoing discussion, Appellants respectfully request reversal of the Examiner's rejections.

Respectfully submitted,

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CLAIMS APPENDIX

1 - 10 (Canceled)

11. (Rejected) A dishwasher comprising
at least one rinsing container having an interior in which items to be subjected to a
dishwashing treatment are disposed; and
a spray device for spraying rinsing liquid into the interior of the rinsing container, the
spray device including at least one spray channel for guiding a rinsing liquid and at
least one distributor for regulating the supply of rinsing liquid to the at least one spray
channel, the at least one spray channel having, on a side directed towards the interior
of the rinsing container, openings for the passage therethrough of the rinsing liquid
and having two open ends via which rinsing liquid can be supplied in a pressurised
manner.
12. (Rejected) The dishwasher according to claim 11, wherein the at least one distributor
is mounted to be movable relative to the at least one spray channel in a selected one of
a to-and-fro displacement movement in alternating directions and a movement that is
not a to-and-fro displacement movement in alternating directions.
13. (Rejected) The dishwasher according to claim 12, wherein the at least one distributor
has at least one opening through which rinsing liquid can be supplied in a pressurised
manner via an open end of the spray channel in a predetermined position of the
distributor.
14. (Rejected) The dishwasher according to claim 11, and further comprising another
distributor, the at least one distributor being at the first open end of the at least one

spray channel and the other distributor being provided at the second open end of the at least one spray channel and the at least one spray channel and the other distributor operating to regulate the supply of rinsing liquid to the spray channel.

15. (Rejected) The dishwasher according to claim 11, and further comprising another distributor and wherein the at least one spray channel is one of a plurality of spray channels each of which has a first open end coupled to the at least one distributor and a second open end coupled to the other distributor.
16. (Rejected) The dishwasher according to claim 12, and further comprising drive means for driving the at least one distributor in a periodic movement.
17. (Rejected) The dishwasher according to claim 16, wherein the at least one distributor includes a drive slot and the drive means includes a rotary disk and a cam arranged thereon, which engages in the drive slot formed in the at least one distributor.
18. (Rejected) The dishwasher according to claim 11, wherein the pressure at which the rinsing liquid is supplied to the spray channel is variable.
19. (Rejected) The dishwasher according to claim 11, wherein the at least one spray channel is tubular and the openings for the passage of rinsing liquid of the at least one spray channel are configured over a predetermined arc segment of the at least one spray channel on the side thereof directed towards the interior of the rinsing container.
20. (Rejected) The dishwasher according to claim 11, wherein the rinsing container is trough-shaped and the at least one spray channel is one of a plurality of spray channels that are aligned parallel to one another at least on the bottom of the rinsing container.

21. (Rejected) The dishwasher according to claim 11, further comprising:
a second distributor,
wherein the at least one distributor is at the first open end of the at least one spray channel and the second distributor is at the second open end of the at least one spray channel,
wherein the at least one distributor and the second distributor cooperate to regulate a quantity of rinsing liquid supplied to the spray channel and a pressure of the rinsing liquid in parts of the spray channel.
22. (Rejected) The dishwasher according to claim 11, wherein the at least one distributor is movable relative to the at least one spray channel in a to-and-fro displacement movement in alternating directions.
23. (Rejected) The dishwasher according to claim 22, and further comprising drive means for driving the at least one distributor in a periodic movement,
wherein the at least one distributor includes a drive slot, and
wherein the drive means includes:
a rotary disk; and
a cam arranged on the rotary disk and engaging the drive slot formed in the at least one distributor.
- 24-42. (Allowed)

EVIDENCE APPENDIX

None

RELATED APPEALS APPENDIX

None